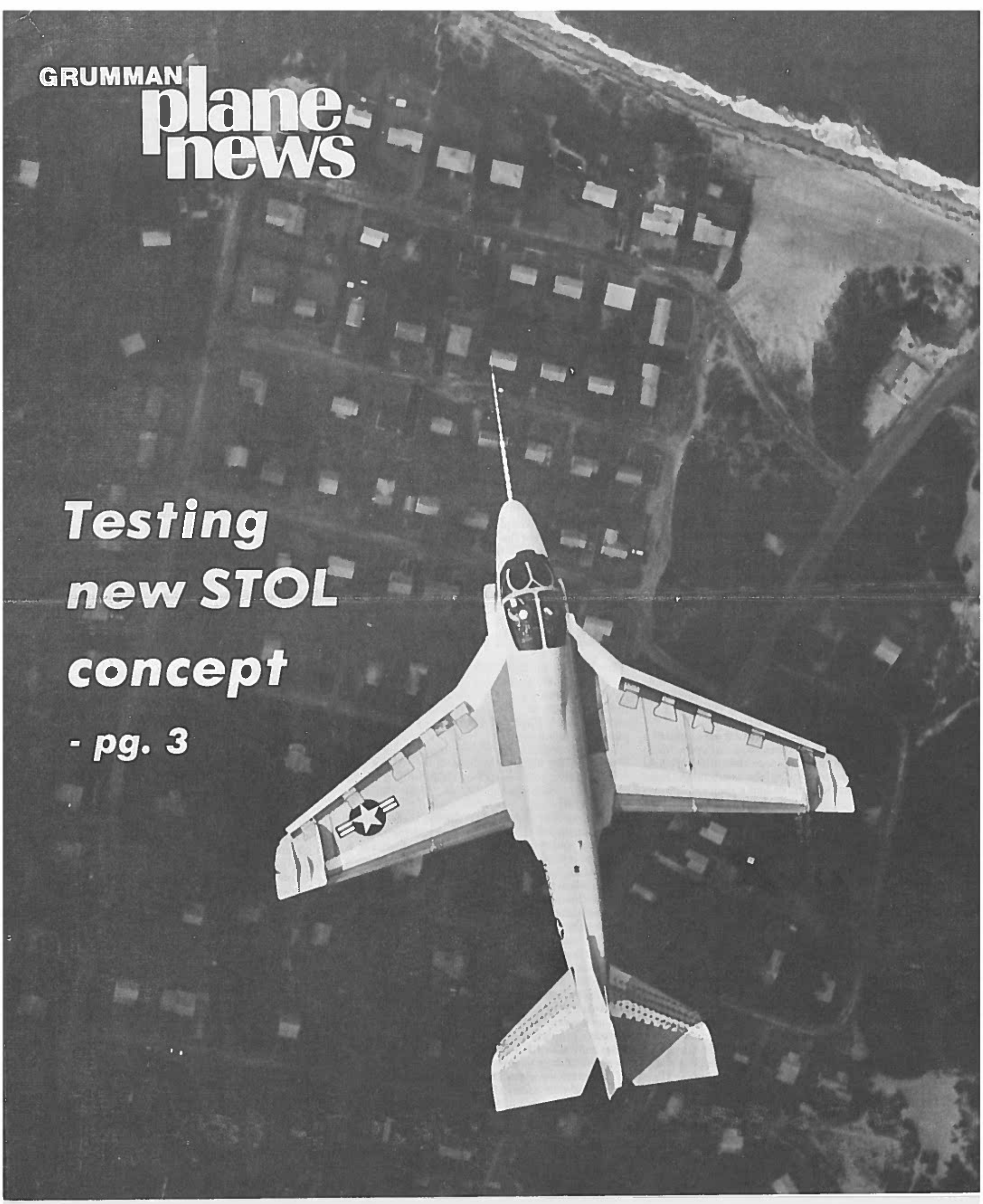
GRUMMAN

plane news



Testing new STOL concept

- pg. 3

Plant 2 undergoing renovation

The first major changes made to Plant 2 since WWII are almost completed. The building's north assembly floor has been completely refurbished and a new 40,000 sq. ft. extension is being constructed on its eastern end. One of the earliest buildings at Grumman's Bethpage facilities, Plant 2 was completed in mid-1941 to build Wildcats and the Avenger torpedo bomber.

When the work is completed, all of the manufacturing operations from Plant 27 (Wyandanch) and Plant 36 (Garden City) will be done in Plant 2. "The move will enable us to consolidate our manufacturing to provide a more efficient flow and better utilization of personnel, and to cut costs," says Hal Pabst, director of Plant Operations for Plants 2 and 36.

Work on the north assembly floor began last January and the area was completely emptied and gutted. The old concrete floor was removed, "right down to the potato field it used to be," says Pabst, and a new floor was laid. Modern air and electrical systems were placed under the concrete floor, a new concept at Grumman for the treatment of utilities required by production, and the 40,000 sq. ft. area was painted on bright orange and yellow. The lighting in the area was improved with the installation of mercury vapor lamps overhead.

While the north assembly floor was being refurbished, work was going on in the surrounding area. Workers had to contend with the vibration of jackhammers, dirt, dust and noise. "I have to give credit to the men on the floor for suffering through it all," says Pabst. "The men would just dust off their tools and go back to work."

New decor. *The newly refurbished north assembly area in Plant 2 now houses fixtures and assemblies from Plant 27 and about two-thirds of the Plant 36 manufacturing operations. (Photo by Harry Prodromides)*

Fixtures and assemblies from Plant 27 have been installed in the refurbished area of Plant 2 and about two-thirds of the Plant 36 manufacturing operations moved in. The move from Plant 36 is expected to be completed by the end of August, after completion of the new extension.

The extension now being built on the east end of the north assembly floor is well underway. The structural steel framework is up, the floor poured, and workers are now busy on the roof and ductwork.

"When this is all finished, we'll be building the E-2Cs here," says Pabst. "We'll assemble them here, and then roll them out the back, right across the runway to Plant 4 for final assembly."

The total renovation of the north assembly floor and the construction of the new extension will "result in an efficient utilization of our resources," says Robert Milani, manager of Industrial Engineering. "The transition is being completed within the budget and schedule thanks to the dedicated efforts of Facilities Engineering, Maintenance, Manufacturing Technology and other supporting departments."

Some taxpayers can still cut taxes by itemizing

Although income taxes for many of us have been reduced by the zero bracket amount, some people can reduce their taxes even more by itemizing deductions, when their deductions come to more than the zero bracket amount status.

Generally, you will benefit from itemizing deductions if you paid interest and taxes on a home you own, had unusually large uninsured medical and dental expenses during the year, made large charitable contributions, or had a major uninsured casualty loss.

If you decide to itemize, you must attach Schedule A to your Form 1040 to list your deductible expenses. The decision to itemize should not be a last minute one, because you must keep records of your expenses throughout the year. These records will help you prepare your return and verify your deductions if the Internal Revenue Service calls you in for an examination.

There are five major categories of itemized deductions: medical and dental expenses, taxes, interest expenses, charitable contributions, and miscellaneous deductions.

Deductible medical and dental expenses include such things as payments to physicians or dentists; payments for hospital services, laboratory fees or x-rays; transportation costs essential to medical care, such as to and from a doctor's office; and payments for eyeglasses, hearing aids and parts, dentures, and crutches. Total medical and dental expenses are deductible to the extent that they are more than three percent of your adjusted gross income. Remember if you were reimbursed by insurance or otherwise, you must subtract this amount from your medical expenses.

As part of medical deductions, taxpayers may include payment for certain medicines and drugs as medical expenses to the extent that they are more than one percent of adjusted gross income. The excess is then subject to the three percent limitation previously mentioned.

You may include non-prescription medicines and drugs that are legally obtained. Birth control pills or medically recommended vitamins would be acceptable while toothpaste or facial cosmetics would not be.

You may also deduct, without the three percent limitation, one-half of what you paid for medical insurance during the year, or $150, whichever is less. The rest of the payment for medical insurance may be included with your other medical expenses.

The following state or local taxes that you paid during the year are deductible: income tax (including taxes withheld or paid as estimated tax during the year), real property tax, personal property tax, general sales tax, and gasoline tax. Federal taxes are not deductible on your Federal income tax return.

The tax on certain major purchases, such as a car, truck, or boat, or materials purchased to build a new home, generally can be deducted in addition to the amount in the Optional Sales Tax Table. Personal property taxes that are charged by some states may also be deductible if they are based on the value of the property and assessed annually.

The interest you paid during the year on a debt is deductible if it meets the following tests: it must result from an actual debtor/creditor relationship; the interest must be based on a valid obligation to pay a fixed sum of money; and the debt must be one for which you are legally liable. Such debts include a car loan, a bank loan, an educational loan, the mortgage on your home, and the "finance charge" paid when you purchase clothing or other items on an installment plan, budget charge account, or credit card.

Generally, you may deduct contributions you paid to any qualified organization established and operated exclusively for charitable, religious, educational, scienteific, or literary purposes, or for the prevention of cruelty to children or animals; to fraternal organizations if the contributions are used for charitable purposes; to veterans' organizations; to government agencies that will use the gifts exclusively for public purposes.

If you donate property other than money, your deduction is the fair market value of the property, that is, the amount you could reasonably expect to receive if you were selling the property.

And remember that a contribution is only a contribution at the time of its delivery. Pledges are not contributions until you make payment. If a contribution results in a personal benefit, only part of it may be deductible. For example, if you buy a $50 ticket for a church benefit which includes a meal worth $15, you can claim only $35 as a charitable contribution.

If you plan to itemize deductions, by all means read the tax instructions carefully. You may also wish to use the handy mail-order form in your tax package to request some of the free IRS publications mentioned in the tax instructions.

[*The preceding was supplied by the Internal Revenue Service.*]

Vol. 38, No. 3, February 9, 1979, Bethpage, N.Y.

CCW begins flight testing at Calverton

The first flight of an A-6 modified to test a new STOL (short takeoff and landing) concept was made at Grumman's Calverton facility on January 29. This was the beginning of a flight program which will test a Circulation Control Wing (CCW) which is expected to reduce approach speed, landing ground roll and takeoff ground roll, improving the plane's efficiency for carrier and other short field operations.

The CCW concept was developed by the David Taylor Naval Ship Research and Development Center (NSRDC). It is based on the Coanda effect, the phenomenon illustrated by the behavior of water running down the back of a spoon and following its curvature. With CCW, air from the aircraft's engine compressor is blown out of a narrow slot over a rounded trailing edge running the full span of each wing. The high velocity sheet of air clings to the trailing edge, and drags an additional flow of ambient air with it.

Increased lift

The downward momentum of this air flow imparts an additional vertical thrust component to the wing, increasing its lift. With the increased lift, the A-6 is expected to be able to reduce takeoff ground roll by 20 %, reduce approach speed by 30 % and reduce landing ground roll by 50 %.
ground roll by 20 percent, reduce approach speed by 30 percent and reduce landing ground roll by 50 percent.

The NSRDC, which has been studying the CCW as a short takeoff and landing device since 1968, spent two years in wind tunnel development of a 1/8.5 scale model A-6 modified to the CCW configuration. Grumman began working closely with NSRDC in 1975 on the project and, using the wind tunnel data, modified an A-6 to provide an actual test of the CCW concept.

"The A-6 was selected by the Navy as the best candidate for the CCW flight demonstration because of its excellent aerodynamic configuration-wing planform, full span wing flaps, large horizontal stabilizer and moment arm, moderate wing sweep, and airfoil thickness," says Robert Englar, the Navy's CCW program manager at NSRDC. "In addition, its twin engines provide more available bleed air for blowing, and added reliability."

Grumman converted the A-6 by installing a fixed Coanda trailing edge below the wing's conventional trailing edge, and a Kreuger leading edge flap on the inboard wing panel. The existing leading edge slats on the outboard wing were locked in an extended position.

The modified A-6 has a non-folding wing with fixed flap and slat configuration for simplicity. During testing it will not be able to change from a high-lift CCW mode to a cruise-flight configuration. Testing will be done at speeds of less than 250 knots and altitudes up to 15,000 ft.

Other modifications include an enlarged horizontal tail with an inverted droop leading edge and a chord increase of 40 percent. These changes were made because wind tunnel tests showed that the blowing air on the wing's trailing edge produced a tendency for nose-down pitching moments.

The test flights will check the stability of the CCW modifications as well as its effectiveness in producing short takeoff and landing capabilities.

Chuck Sewell, Gruman's chief test pilot, who flew the modified A-6 in its first test flight, says that "it was an effective first flight. We've got a good start on the CCW program."

GRUMMAN plane news

Published twice a month for the employees of Grumman Aerospace Corporation, Bethpage, N.Y. 11714, as a function of the Public Affairs Department, Brian Masterson, director.

Editor
Kathy Housley
Ext. 3293

Associate Editors
Gerry Kirshenbaum Ext. 5118
Norine Lyons Ext. 5119

Editorial Assistant
Kristin Lane
Ext. 8999

Plane News from outside line: (516) 575-8999

Double your college donations

It's not often these days that a dollar buys two dollars worth of anything, but it can happen if you take advantage of Grumman's Matching Gifts Program. Every dollar contributed to a college or university will be matched by Grumman, dollar for dollar, up to $1,000.

"Matching a gift doubles a person's contribution and provides much needed support to our colleges," says Gus Lanzo, Matching Gifts Program administrator and director of Grumman Aerospace's Career Education and Development Department. "Such corporate programs usually lead to an increase in the number of donors."

Gifts are eligible for matching company funds when they are made by an actively employed member of the Grumman Corporation, or any of its subsidiaries. All you have to do is get a receipt or letter of acknowledgement for your donation from the school which shows the amount of the gift, the date it was made, and the name of the donor. Add your Grumman identification number and mail stop number to the receipt and send it to Gus Lanzo, Director, Career Education and Development Department, Mail Stop A01-39.

You don't have to be an alumni of the school to have your gift matched. Perhaps you wish to support your child's college, or your spouse's, or just some university that you feel is doing a good job. You may even give to more than one school, up to the $1,000 limit. As long as you are contributing to an eligible institution, Grumman will match it.

The current matching gifts accounting period runs from November 1, 1978, to October 30, 1979, and at the end of the year a tally will be made of the money contributed to each institution by employees. The Matching Gifts Program Office will send the appropriate accounting list to the Contributions Committee of the Grumman Corporation for the distribution of matching funds to each of the eligible institutions. For the last matching gifts year, Grumman contributed $25,400 to 112 colleges and universities.

For further information on the program, call Gus Lanzo on extension 3748.

Note to parents

Parents are reminded that dependent health insurance on children who reached age 19 before the end of January 1979 expired February 1, 1979--unless they are full-time students. Coverage for full-time students expires the February 1 following their 24th birthday.

Transfer to one of several plans of individual health insurance is available on a direct-payment basis. Applications and rate information are available from the Insurance Department in Plant 28.

Parents of children who reached age 19 before January 1, 1979 and who are incapable of self-support because of mental or physical handicaps may call Dolores Stierle, Ext. 3314, for information concerning continued dependent coverage under the Grumman Group Insurance Plan.

Applying aerospace technology to firefighting

Flames are shooting out of a fourth story window; the fire department in full turnout gear has just arrived. A firefighter, wearing roughly 60 pounds of clothing and equipment, his air pack strapped to his back, tilts his head to look up to the fire. His helmet bumps into the air pack -- and the helmet falls off.

Compatible system

Besides being heavy, cumbersome, and somewhat uncomfortable, many components of a firefighter's protective outfit and equipment do not work well together. And Grumman Aerospace, under a contract from the United States Fire Administration (USFA) and the National Aeronautics and Space Administration (NASA) is trying to do something about that.

Using the same methods and technology that kept the astronauts safe in the hostile environment of space, Grumman is investigating the firefighters' safety requirements in order to develop a lighter-weight clothing system that will work as an integrated unit, providing maximum protection. The program is called Project FIRES -- an acronym for Firefighters Integrated Response Equipment System.

Two-phase program

The USFA and NASA awarded the study contract to Grumman in 1977. The program is divided into two phases. The major portion of the first phase, which was recently completed, involved establishing equipment performance standards, and then evaluating existing equipment against these standards. The results of that testing formed the basis of a preliminary design of a prototype protective ensemble, made up of equipment that is already commercially available. In addition, another system -- the Technology Demonstration Ensemble (TDE) -- based on more advanced equipment and technology, was also developed.

After an interim period of refinement and laboratory testing leading to a final design, the second phase will begin. In this phase, prototype ensembles will be fabricated and distributed to firefighters in test locations throughout the country. After field testing, the ensembles will be evaluated and modified as required.

Energy reduction

"Weight is a big factor," says Hy Kaplan, manager of Advanced Development Civil Technology. "Our testing showed that firefighters wearing current turnout gear and breathing aparatus expend 20 to 85 percent more energy than for the same task performed in street clothing. By reducing clothing and equipment weight, we can reduce the energy expended."

According to Kaplan, excessive weight affects locomotion -- resulting in many tripping, twisting, and falling injuries, and also sprains and strains. "Weight brings on fatigue," says Kaplan, "and many accidents are caused by fatigue-induced error. An extreme effect of fatigue and overexertion is cardiac failure."

Fred Abeles, program manager for Project FIRES, says that implementation of all desired goals is difficult, as they sometimes contradict one another.

"For example," says Abeles, "injuries due to falls can be minimized by adding padding to the system; however, that would increase weight and decrease maneuverability. High priority goals may sometimes be achieved only by partially sacrificing lesser priority goals."

Tomorrow's firefighter. *Suited up in Project FIRES Technology Demonstration Ensemble (TDE), this firefighter is protected from hazards such as flames, radiant heat, smoke and toxic fumes. (Photo by Rich Breunig)*

Burns and scalds are obviously high on the list of firefighters' injuries. Studies have shown that the present equipment leaves certain areas of the body particularly vulnerable. Exposed skin surfaces, such as the neck, face, wrists, and hands, are the most commonly burned areas.

"An ideal system would cover all surfaces, yet would still be comfortable to wear," says Abeles. "If an item of clothing is bulky or uncomfortable, the firefighter may not use it at all, or use it incorrectly." Thus, gloves stay in pockets, hip boots are left turned down.

"Sometimes they leave off breathing apparatus," Kaplan says. "Most breathing systems used today average between 25 to 33 pounds. A firefighter should use his apparatus every time he enters a fire scene. But because of the weight, the discomfort, and the fatigue factor, he may choose not to. And the effects of inhaling smoke and other toxic substances are sometimes more dangerous than flames."

To combat these and other problems, the Project FIRES team developed the Technology Demonstration Ensemble, in which technology rather than cost was the prime consideration. "What we've come up with is an idealized version of a firefighter's turnout gear," says Kaplan, "and it's not only significantly safer, it's also less than half the weight."

The ensemble is made up of four systems:

- The basic garment is one piece, similar to a jumpsuit. Underneath, on both arms, are wristlets, which eliminate the exposed wrist when a gap between the coat sleeve and glove occurs. Standard equipment gloves are worn over the wristlets. The suit has an attached hood to protect the neck; the suit legs have Velcro cuffs which attach to the boot tops.
- The helmet is similar to ones used by pilots. It is made of foam insulation and advanced composite materials, and provides for excellent peripheral vision. Inside the helmet is a bone-conducting microphone, eliminating the need to carry a walkie-talkie-type communications system. Voice vibrations are transmitted as one talks; the hands are free for other tasks. This communications system uses only local channels at the fire scene and is practically immune to the interference common to other public service frequencies. A public address mode is available to each firefighter, too, without having to use a loudspeaker. An emergency tone can be transmitted as well if a firefighter is lost or injured.
- The breathing system is compact and lightweight. The connecting hoses are in the front for easy access. As soon as the helmet visor is slid down, the system turns on automatically. Because it is a "rebreather" system, it uses a smaller oxygen supply than conventional breathing systems. The "rebreather bag" is built inside the back of the suit. The air supply lasts approximately 30 minutes, the same as conventional breathing systems.
- The lighting system is the size of a pack of cigarettes. Powered by rechargeable nickel-cadmium batteries, it has a high-intensity quartz halogen lamp to give better illumination in smoke. With a clip or Velcro fastener, it can be quickly attached or detached from the suit or helmet.

"Firefighting is the most hazardous of all professions," says Kaplan. "But we have the technology and the materials today to improve the odds. The TDE is meant to serve as a standard for equipment compatability and as a guide for manufacturers. We're working to make the firefighter's job easier and safer -- with the best protective clothing system possible."

people

"Tack sa mycket" means "thank you" in Swedish ... and there are three young exchange students who've got a special reason for saying it. They're currently guests of three Grummanites and their families who've agreed to share their homes with them for the school year.

Kenneth Gustafson of Plant 14 and his wife Nicole are hosting Carina Andersson, who comes from Vallentuna, Sweden. Jonas Hellstrom of Ostersund, Sweden, is staying with David Lamb (Plant 2) and his wife, Janice; and Bill Eager (Plant 25) and his wife Arlene are hosting David von Platen of Stockholm.

"Having an exchange student with us has changed the way we look at things," says David Lamb. "Jonas has helped our kids to realize that there's more to the world than Long Island. It's been a wonderful experience for all of us."

Apparently, the benefits of the arrangement are mutual. "I think that Carina has changed her mind about Americans," says Kenneth Gustafson. "Before she came here, the only ones she had met were tourists in her city. She thought all Americans were overweight and obnoxious and rich."

Carina worked very hard to come to the United States. "She worked for two years in canning factories and department stores to save up the money for her expenses," says Gustafson.

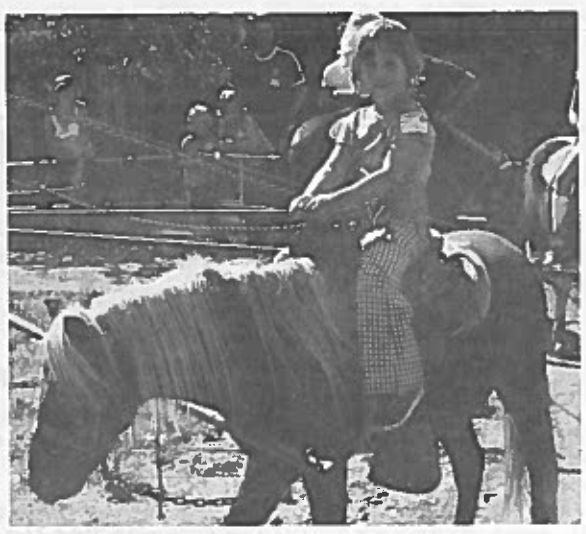
Bill Eager's son, Bill Jr., spent last year in Stockholm; that's how the Eagers became involved in the exchange student program. "David's been more like an adult guest than a teenager," says Eager. "On the whole, I think Scandinavian kids are more studious, more independent than kids here."

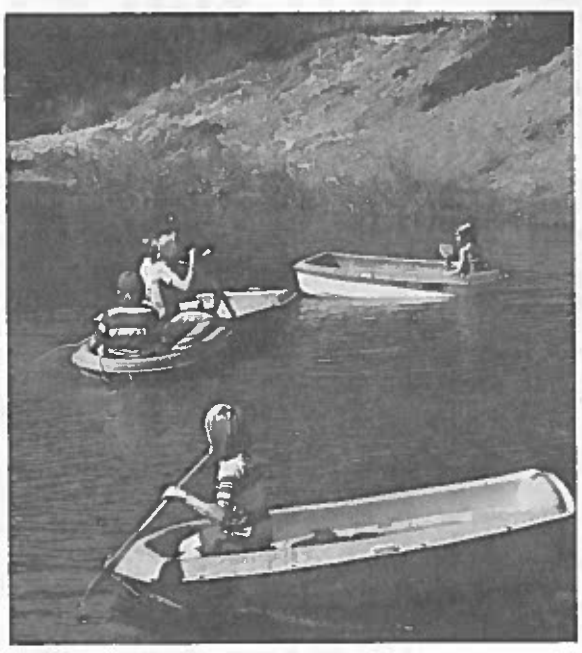
Dave McKendrick of Plant 12 agrees. The McKendricks were host to 18-year old Tor Ansved last year. "They seem more disciplined, and much more serious about their education," says McKendrick.

The family still keeps in touch with Tor. "We all miss him," says McKendrick. "I have five daughters, and they're wonderful ... but for a year, I had a son. I really enjoyed having Tor around."

According to Penny Tarplin, Long Island area representative for the American Scandinavian Student Exchange, there are 500 students from Sweden, Denmark, Norway, and Finland awaiting invitations to come to America for the 1979-1980 school year, or for five weeks in the summer. All speak English fluently (English is a requirement in the schools from third through ninth grade) and have medical insurance and pocket money.

If you are interested in participating in the program, contact Penny Tarplin, American Scandinavian Student Exchange, 141 South Windsor Avenue, Brightwaters, N.Y. 11718; telephone number is (516) 666-8404.





Western style. *Over 800 members of the Grumman family gathered at the 9th annual Pt. Mugu family picnic for a full day's outing at Malibu. In addition to a Chuck wagon dinner of barbeque beef and fried chicken, Grummanites and their families played volleyball, softball and rode on hayrides.*

calendar

American Production & Inventory Control Society: Tues., Feb. 20, Musicaro's, Melville, dinner: 6:30 p.m., speaker: 8:00 p.m.; local chapter; guest speaker: A. Ballow, GAC; guests welcome. N. Heilweil, Ext. 2250.

China-Burma-India Vets Association: Fri., Feb. 9, 5 p.m., Pl. 28; membership meeting. W. Pytlowany, Ext. 2441.

Coin Club [Calverton]: every Fri., 1st noon lunch, Pl. 6 conference room; U.S., foreign coins, medals, collectables; guest welcome. W. Kondratowicz, Ext. (117) 6680.

Coin Club: Wed., Feb. 28, 12:00 noon, Pl. 25 conference rooms; information exchange, buying, selling, and trading. K. Hale, Ext. 3721.

Dance Club: every Wed. 5-8 p.m., American Legion Hall, Plainview, Feb. 14 Valentine's Day Social & Square Dance, refreshments will be provided/Feb. 21 Social at Uncle Sam's; friends and relatives welcome. E. Murway, Ext. 2263/M. Brown, Ext. 3262.

Duplicate Bridge Club: every Thurs., 6 p.m., Pl. 30 cafe; open competition; guests welcome. S. Campbell, Ext. 4023/W. Lipman, Ext. (115) 6145.

Fencing Club: every Tues., after 4:30 p.m., Pl. 30 cafe; both beginners and experienced fencers; instruction and competition; GAC employees and dependents welcome. P. Chaldaris, Ext. 4331.

Flying Club: Fri., Feb. 9, 5:00 p.m., Pl. 28 auditorium; regular monthly membership meeting; guests welcome. R. Reisch, Ext. 5967.

Folk Dancers Club: every Tues., folk dancing, every Thurs., hustle and ballroom dancing; some instructions available lunchtime, receiving area, Pl. 6; all welcome. E. Urciuoli, Ext. (117) 6688.

National Secretaries Association: Thurs., Feb. 15, 6:30 p.m., Polish Hall, Riverhead; presentation: 1979 International Program of the Year, "The Metric System;" guest speaker: R. Jonassen, GAC; guests welcome. E.M. Gaias, Ext. (117)7397.

Retiree Club: Wed., Feb. 28, 1:30 p.m., Holiday Manor, Bethpage; business meeting. E. Drasser, Ext. 2133/2269.

Scuba Divers Club: Wed., Feb. 14, 7:00 p.m., Chateau Restaurant, Exit 50, L.I.E.; guests welcome. A. Andreiev, Ext. 5537.

Ski Club: Wed., Feb. 14, 8:30 p.m., Hillside Restaurant, Plainview; movies, demonstration, fashion show; guests welcome. A. Garmendia, Ext. 7819.

Society of Manufacturing Engineers: Fri., Feb. 12, 7:30 p.m., Polytech. Inst. of N.Y., Farmingdale; business and technical meeting; guest speaker: R. Sanderson, GAC; guests welcome. A. Pinker, Ext. 8880.

obituaries

EUGENE BLANCK of Flt. Ops. Insp., Plant 7, died January 29 at the age of 60. He had been with the company since 1956 and resided at 19 Flower Lane, Centereach.

HARRY COX of Final Assy. Insp., Plant 6, died January 27 at the age of 46. He worked for Grumman since 1966 and resided at 1101 Flanders Road, Riverhead.

EDWARD RAMSHAW of Plt. Protect., Plant 7, died January 25 at the age of 56. He had been with the company since 1953 and resided at Route 1, Box 162, Yaphank.

Personals

I wish to thank my friends, co-workers and Employee Services for their kindness and sympathy during the recent loss of my mother. **Bert Thompson**

On behalf of my family and myself, I wish to extend my sincere appreciation to all our friends, co-workers and Employee Services for their kind expression of sympathy during the recent loss of my father. **C.G. Spiros**

We wish to thank all our friends at Grumman and Employee Services for their kindness and sympathy during the recent loss of our father. **John and Jim Szczepanski**

J.J. Beck Jr.

L.H. Shellard

B.L. Brooks

F.P. Lagonigro

J. O'Brien

R.E. Watkins

B.J. St John

J.P. Casey

W.J. Murphy Jr.

service milestones

L.J. Lovisek

V.J. Tascarella

J. Russak

G.E. Landin

35

Peter Wladyka, Tanks & Ducts (2)
Joseph Domanski, Spt. Weld. (3)
Gordon R. Emmons, Convent. Mach. (5)
John J. Dalessio, Assy. Meth. & Plnng. (5)
Sol Schneider, Mfg. Tech. Prod. Serv. (3)
John L. Brooks, Corp. contracts (5)
Frank P. Lagonigro, Config. Data Mgt. (5)
John O'Brien, Senior Vice President Administration & Resources (5)
Robert E. Watkins, director, Field Operations. (5)
Bernard J. St. John, Lab. Mgt. & Tech. (14)
James P. Casey, Simulation (14)
William J. Murphy Jr., Ops. (25)
Louis J. Lovisek, Eng. Mgrs. (25)
Vincent J. Tascarella, Corp. Proc. Ops. Mgt. (30)
Joseph Russak, Suppl. Plnng. & Cntrl. (30)
George E. Landin, Elect-Mech. Lines (35)
Kenneth R. Doe, Ops. (35)
Regina A. McKenna, Secret Serv. (35)
John A. MacKnight, Mass. Prop. Anal. & Cntrl. (4)
Hank Henriksen, Des. Eng. Proj. Eng. (4)

K.R. Doe

R.A. McKenna

J.A. MacKnight

H. Henriksen

30

Michael Stanco Jr., Prototype (1)
George W. Brown, Fuse Fwd. Sub. & Major. (1)
John Zarodkiewicz, Tech. Rqmnt. (1)
Rocco Truglia, Alodine (2)
Michael Ranaldo, Prototype (2)
Herman P. Michaels, Tanks & Ducts (2) Bertil G. Lindgren, MFg. Admin/bus. Mgt. (2)
Harold Martinsen, Templates (2)
Paul A. Riedener, Dtl. Pts. Plnng. (2)
Andrew A. Goshefski, Spt. Weld. (3)
David D. Boyce, Honeycomb Prep. (3)
Richard A. Anderson, Tool Maint. & Rep. (3)
Robert C. Noe, Veh. Liaison Eng. (3)
Cosmo D. Strigaro, Matl. Mgt. (5)
Gregory Stilwagen, Invent. Cntrl. (6)
John L. Froland, Flt. Ops. Insp. (7)
Anthony R. Cicale, Eng. Devel. Mgt. (14)
Robert Gedney, Elect. Mech. Des. (25)
Joseph F. Heavey, Corp. Instru. Syst. (25)Gerald R. Altmann, Rqmnts. Plnng. (30)
Perry L. Gardner, Cntrls. & Mech. (3)
Arnold B. Whitaker, Syst. Eng. Mgt. (35)
William R. Klatt, Tech. Direct. (36)
George B. Duncan, Router & Shear (37)
Charles J. Murphy, Status & Cntrl. (43)
Otto A. Christen, Meth. Eng. A/C (43)
Raymond M. Bohanon, Invent. Mgt. (44)
George W. Yarrington, Composites (66)
Terrence J. Newitt, Site Mgt. (67)

25

Joseph J. Beck Jr., Spec. Tool Des. (2)
Louis H. Shellard, Maint. Admin. (2)
Peter F. Zaccardo, Veh. Liaison Eng. (2)
Jasper E. Messina Jr., Mach. Op. Tech. Serv. (3)

Also included in this month's anniversaries are: Leonard W. Keer, Performance (40); and William J. Rigby, Tech. Mgt. Syst. (4), who celebrated 25 years with the company in January.

20

John W. Walsh, ILS Rqmnt. Def. (1)
John A. Malenchek, Prototype (2)
Alexander McAslan, Steel Parts Assy. (2)
Gerardo L. Ottaiano, Jig Dtls. & Sub-Assy. (2)
John W. Galaway Jr., Maint. (2)
Dorothy Ruland, Telephone Serv. (2)
Leo J. Rogers, Q.C. Lab. (2)
Stanley G. Spero, Convent. Mach. (3)
Walter W. Blenner, Assy. (3)
Richard Rant, Maint. (3)
Raymond F. Newcomb, Insp-Mech. (3)
Robert V. Walsh, Insp-Mech. (3)
George A. Zetkov, ILS Syst. Des. Eng. (4)
Frederick J. Dewitt, Instr. Test (5)
Walter F. Hilbert, Environ. Cntrl. Des. (5)
Robert Botwin, Prop. Staff (5)
Vincent J. Crafa Jr., Prop. Syst. (5)
Peter J. Sanicola, Fluid Mech. (5)
Edward M. Finkelman, Syst. Anal.(5)
Robert J. Del Vecchio, Life Sciences (5)
Beatrice E. Winkler, Ops. Anal. (5)
Vahe Jordan, Ops. Anal. (5)
Raymond J. Munz, Adv. A/C Syst. (5)
Vincent A. Padovano, Fin. Ops. (5)
Richard P. Wellenberger, Instr. Test (6)
Charles J. Kanige, Admin. (7)
August H. Bohn, Flt. Dyn. & Load (7)
Paul G. Schnabel, Corp. Inst. Flt. Data (7)
George A. Graefe, Avion. Dev. (7)
Donald R. Sohl, Navig. & Cntrl. Equip. Prod. Suppt. (7)
Joseph S. Stevenson, Plastic/Plaster Tool. (11)
Axel R. Nordstrom, Maint. (12)
Herman J. Hessel, Maint. (12)
Edward H. Leszak, Adv. Matl. & Proc. Deve (12)
Edward J. Gray, ILS Tech. Writing (15)
George F. Foray, ILS Publs. Cntrl. (15)
Jerome B. Look III, B/P Warehouses (17)
Harry H. Weir, Prog. Matl. Mgt. (25)
George H. Hilton, Metal & Weld. Eng. (25)
Peter G. Belies, Safety & Maint. (25)
Michael Proise, Stab. & Cntrl. Flt. Qual. (25)
Dennis G. Hansen, Mass Prop. Anal. & Cntrl. (25)
Alan C. Stewart, Optic Display, Navig. & Cntrl. (25)
Francis E. Butler, Optic & Display Equip. Des. (25)
Arthur Schukal, Prog. Qual. Mgt. (25)
Walter K. Muench, Prog. Mgt. Space (25)
Frank A. Petta, Config. Data Mgt. (25)
Martin L. Rossi, Nuclear & Astrophysics (26)
James B. Lemyre, Proc. Serv. (3)
Vincent Gonzalez, Proj. Mgt. (30)
Deane F. Flader, ILS Syst. Des. Eng. (31)
Elmer A. Sulander, ILS Rqmnt. Def. (35)
Ronald E. Boyland, Fluid Mech. (35)
Bernard D. Mulnard, Software Syst. Mgt. (35)
Frances T. Lyons, Secret. Serv. (35)
William T. Dwyer, Upholstery (36)
Joseph M. Le Strange, Syst. Anal. (40)
Irwin Palmer, Prog. Mgt. (40)
Albert E. Witzig, Mech. Struct. & Assy. (43)
Vincent S. Falcone, Status & Cntral. (43)
Arthur E. Johnson JR., Insp. Mech. (43)
Erick Stern, Eng. Mngrs. (72)
William M. Mang, Prod. Mgt. (77)
Raymond G. Makowski, Tech. Ops. (77)
Robert Shaw, Facilities (7)
Joseph Gillman Jr., F-14 Aft. Sect. Assy. (77)
Joseph C. Mc Ardle, A/C Syst. Serv. (80)
Robert A. Stewart, GSFC-Mission Ops. (84)
Bernard C. Capone, Power Plt. Des. (86)
Sam Piazzola, Paymaster (111)
Peter Oram, Grumman International President (111)

L.W. Keer

W.J. Rigby

15

Remo L Di Tieri, ILS Prog. Mtg. (1)
William A. Spina, ILS Resource Cntrl. (1)
Stanley Roberts, ILS Digital Eng. (1)
Wilbur A. Lockman, Tech. Rqmnt. (1)
Carmen De Cianni, Tanks & Ducts (2)
August F. Nigl, Prop. Test (2)
Joseph J. Steuerwalt, Die Shop (2)
Dorothy A. Buckley, Food Serv. Acct. (2)
Theodore J. Stoetzer, Convent. Mach. (3)
Robert F. Helfst, Mach. Oper-Parts Cntrl. (3)
Joseph G. Sargent, Flt. Avion. (4)
John Mica, Final Assy. Struct. (5)
Anne P. Mancusi, Food Serv. (5)
James A. Tedesco, Ops. Anal. (5)
Gennady N. Kozyreff, Ops. Anal. (5)
Hosen R. Lu, Adv. A/C Syst. (5)
Leonard G. Smith Jr., Est. Resources (5)
Alf E. Casparsen, Plt. Protect. (6)
James H. Meagher, QC Mgt. & Admin. (6)
William G. Shannon, Calverton Ops. Mgt. (6)
Richard Andre, Comp. Equip/Softwre. Prod. Suppt. (7)
Marion L. Cooper, Air Traffic & Radio Comm. (7)

service milestones

James N. Bennett Jr., Safety & Maint. (25)
Gerald T. Halpern, Prog. Contracts (25)
Jennie Della Pietra, Gen. Comm. (30)
Vivian M. Agnoli, Food Serv. (30)
Jennie G. Ruggiero, Food Serv. (30)
William H. Lord Jr., Contract Rev. (30)
Louis R. Cozza, Mfg. Prog. Mgt. (35)
Florence A. Del Solo, ILS Secret. Serv. (35)
Agnes Sabatino, Food Serv. (35)
Horace McCullough, Food Serv. (35)
Francis J. Delaney, Fluid Mech. (35)
James F. McGonigle, Prog. Contracts (35)
Nancy L. Winding, Prog. Contracts (35)
Kenneth A. Bedell, B/P Warehouses (37)
Paul K. Heim, Power Plt. Des. (40)
Alfred L. Cimino, Syst. Eng. Proj. Eng. (40)
Albert M. Gurkewitz, EF-111 (40)
Hermon O. Lee, Elect. Final Assy. (43)
Randolph F. Soper, Q.C. Tech. Serv. (43)
Arthur J. Duvall, A/C Syst. Serv. (68)
Paul Michinski, Tool & Proto. (77)
Nealon Mechanic, Paint Shop (77)
Vester Thomas, Indust. Eng. (77)
James R. Wallace II, Indust. Eng. (77)
Charles R. Howe, Paymaster (111)

The following people celebrated their 15th anniversary in January:

Fred Edelstein, Thermal Studies (25)
Roy E. Olsen, Stabil. & Cntrl. Fly. Qual. (25)
Robert F. Jarvis, Corp. Instru. Syst. (25)
Anthony Razziano, Prog. Plnng. Cntrl. & Budg. (25)
William D. Spiegel, DOD A/C-Prog. (25)
Robert E. Foster, Pers. Mgt. (28)
Richard F. Schantz, Sec. & Pers. Serv. Mgt. (28)
Audrey Musgrave, Sub. Sec. Prog. (28)
James E. Wallis, Gen. Commodities (30)
Peter J. Dunne, Invent. Rel. & Cntrl. (30)
John L. White, Finan. & Reg. Reports (30)
Stephen T. Campbell, Struct. Anal. (35)
Margaret Sanfilippo, Pers. Liaison (35)
Karl F. Bender, Cent. Sect. Final (36)
Jimmie L. Williams Jr., ILS Equip. Tech. Mgt. (40)
Alan T. Pastore, ILS Est. (40)
Melvin R. Hennen, Elect. Final Assy. (43)
William D. Kirschner, Seller Surveillance (89)

'79 bus trip

Included every year on GAA's travel agenda are several bus excursions. To help Grummanites plan their mini-vacations for 1979, GAA has recently issued its proposed 1979 bus trips. As more information becomes available, PLANE NEWS will publish more details on the following bus trips:

Atlantic City, luncheon buffet, one day, Saturday, March 10.

Washington D.C., weekend trip leaving Friday night, April 20.

Nashville, Tennessee, eight days, depart Wednesday, April 25.

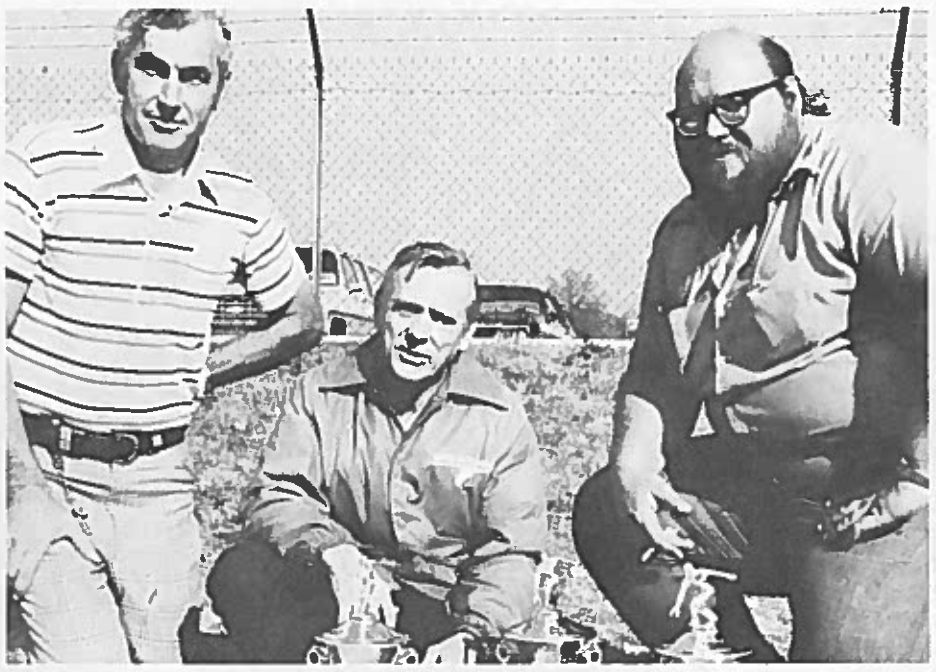
Pennsylvania Dutch Country, weekend trip, depart Friday, June 8.

Manhattan weekend, depart Saturday morning, July 7.

Williamsburg, Virginia, long weekend excursion, two buses, September 13 to September 16, and September 20 to September 23.

Cape Cod weekend, depart Friday evening, October 5.

Reading/Bethlehem, Christmas shopping weekend, depart Friday evening, December 7.



Horseshoe champs. *Bill Reushel (R) captured the 1978 GAA Bethpage horseshoe crown, while in the doubles competition, Fred Allen and Robert Biers (R) won the 1978 title.*

Top paddlers. *The team of Albert Bauer (L) and John Tilders (2nd L) defeated Frank Perazzo and Irv Cohen (R) by the score of 21-8 to win the annual GAA Bethpage paddleball doubles tourney. (Photo by Bob Settles)*

Table tennis tourneys Entry form

Name.....

Mail stop.....Ext.....Shift: Day.....Night.....

Singles: Division [ ] A [ ] B [ ] C [ ] Women's

Do you wish to play doubles? [ ] Yes [ ] No

Doubles partner.....

Mail stop.....Ext.....

Do you wish to play mixed doubles? [ ] Yes [ ] No

Mixed doubles partner.....

Mail stop.....Ext.....

Do you want GAA to find a partner for you?.....

Submit to GAA, A-01

Apollo tix

The Grumman Athletic Association is offering discount tickets -- $5 seats for $3 -- to all the New York Arrows home games at the Nassau Coliseum. Led by Shep Messing, the first U.S. soccer player with a $100,000 contract, the Arrows belong to the new Major Indoor Soccer League. The Arrows home schedule is as follows: February 11, Pittsburgh; February 23, Houston; February 25, Cincinnati; March 4, Philadelphia; March 9, Pittsburgh; and March 11, Cleveland.

Hockey

The Grumman Athletic Association (GAA) is once again offering discount tickets to several N.Y. Islanders' hockey games this season. Tickets that cost $5 per person are now on sale for the Islanders-Pittsburgh game at the Nassau Coliseum on Tuesday, March 24.

Table tennis tournaments begin shortly

During March, there will be a flurry of activity in the northeast corner of Plant 30 when contestants paddle it out for this year's GAA table tennis tourney crowns.

This year, there will be singles, doubles and mixed doubles tournaments. In singles play, there are four divisions of play. The "A" division is mandatory for all trophy winners from both the "A" and "B" divisions of the previous two tourneys (1977 and 1978). This division is also open to all those who feel they are of "A" division rank.

All contestants who have played in previous tournaments and did not win a trophy may compete in the "B" division.

The "C" division is for all new tourney players. Women are encouraged to join the "A," "B," or "C" divisions; they can also elect to play in the special women's division.

Singles competition will get underway first; then, doubles and mixed doubles. Calverton and Great River will have their own table tennis tourneys. If you do not have a partner for mixed doubles play and would like to enter, fill in the appropriate box on the application form, and GAA will find a partner for you.

Entry deadline is Friday, February 23. If you wish to play in any of the tourneys, fill out the entry form on this page and mail it to: GAA, mail stop A-01, attention: Herb Mahoney.

If you have any questions, contact Herb on Ext. 2133 or 2269.

Pocket billiards tourney

Name.....Ext.....

Perm. No.....Mail stop.....

Submit to GAA, A-01

Alaska, Hawaii on tap

How does a trip to Alaska in August sound? Or how about spending the end of summer in San Francisco and Hawaii? Those are just two of the trips that GAA is planning for this year. Here's the rundown on these two vacation packages that you must sign up for this month.

Alaska - August 28 to September 5. Included in this excursion to the 49th state are round trip airfare, railroad fares and a cruise. The trip costs $1,195 per person, based on double occupancy per room. Single occupancy per room is $1,230. Eight breakfasts and eight dinners are part of this package. Members of the tour will visit Anchorage, Prince William Sound, Columbia Glacier (cruise), Valdez, Richardson Highway, Alyeska Pipeline, Fairbanks, and McKinley National Park.

Sign up takes place Tuesday, February 20, at 5 p.m. in the Plant 28 auditorium. A deposit of $100 is required at this time.

Hawaii/San Francisco - August 22 to September 5. For $876 per person (based on double occupancy per room), Grummanites receive: round trip airfare between New York and Honolulu with a return from San Francisco, via United Airlines 747 and DC-10 featuring United's special royal Hawaiian service; regular meals and beverage service aloft; personal lei greetings upon arrival; express baggage handling at all Hawaiian airports and all hotels including porterage; all ground transfers and sightseeing excursions made on air conditioned buses with tour escort on each coach; seven nights accommodations in Honolulu Hyatt Regency, Waikiki; orientation meeting with continental breakfast; half day sightseeing tour of Waikiki; all inter-island flights; four nights accommodations in Maui International Hotel; Iao Valley/Lahaina tour of Maui; three nights in San Francisco Hilton; and half day sightseeing tour of San Francisco. Registration takes place on Tuesday, February 27, at 5:30 p.m. in the Plant 28 auditorium.

Kings of handball. *Winners of the GAA Bethpage handball tournament are (L to R) standing: Nick Bincarowsky, doubles champ; Tom Jenkins and Jim Casey, runners-up in doubles; kneeling: Sam Ferrantino, doubles champ; and Bernie Philossoph, singles champ.*

Pocket billiards sign up

The annual GAA pocket billiards tournament gets underway Thursday, February 22, at the House of Billiards on South Oyster Bay Rd., Hicksville.

Those Grummanites wishing to enter the annual contest should fill out the registration form on this page and mail it to GAA, mail stop A01, no later than Friday, February 16.

In the early rounds of the tourney, 75-points wins a game with single elimination. When the field is cut down to four players, 100 point games are played and there is double elimination. GAA will pay for all scheduled matches. If you have any questions, contact Mike Cherry, Ext. 2133 or 2269.

CB antenna: shocking data

[The following are excerpts from Navy Lifeline in the November/December 1978 issue of Occupational Safety and Health Journal.]

Breaker, breaker one-nine. Got your ears on? CPSC (Consumer Product Safety Commission) has important advice that could save you from a big 10-33, good buddies.

More than half of all electrocutions reported to the commission involve CB or TV antennas. The electrocutions usually occur when the antenna contacts high-voltage powerlines while being put up or taken down. In 1976, more than 100 deaths were associated with CB base antennas. In many of the more severe injury cases the victim lost an arm or a leg.

To reduce such accidents, CPSC has proposed rules requiring that CB base station antennas be sold with instructions for safe mounting and carry labels warning about installation hazards. In the meantime, here are some safety tips from CPSC:

Avoid putting up antennas anywhere near power lines.

Don't assume powerlines are insulated. Most are not.

Never work alone. Always have someone nearby, preferably a person who knows first-aid for electric shock injuries.

If it is at all windy or if the lawn is wet or muddy, don't install an antenna. (Wind can blow an antenna into nearby powerlines.)

If you must use a ladder, use one of wood, plastic or fiberglass only.

Unless you know how to install or remove the antenna yourself, it is best to get a professional to do it for you.

For additional information about safe installation and removal of antennas, get a copy of "10-33: CB Alert Sheet," by writing to: CB Alert Sheet, Consumer Product Safety Commission, Washington D.C. 20207.

GRUMMAN plane news

ADDRESS CORRECTION REQUESTED

BULK RATE
POSTAGE PAID
HICKSVILLE, N.Y. 11802
PERMIT NO. 1110

Vol. 38, No. 3, February 9, 1979. Bethpage, N.Y. 11714